

**CLAIMS**

1. An illumination apparatus (100) for illuminating a person or object, said illumination apparatus comprising:

a light emitting diode (600) having a dielectric casing (604);

5 a solid, flexible rod (300) having an elongated length dimension terminated by a first end (301) and a second end (302), said material having sufficient clarity and being sufficiently dispersive of light such that light entering one of said ends is transmitted along said elongated length dimension and radiates from said rod in substantially all directions along a substantial portion of said length of said rod;

10 said first end of said rod embedded in said dielectric casing; and

an attachment mechanism ((257) connected to said rod for stably connecting said rod to said person or object.

2. The apparatus according to claim 1 and further including an electronics container (200) housing said light emitting diode, a battery (500) and switch (602, 15 250, 227).

3. The apparatus according to claim 2 wherein said attaching mechanism is incorporated into said container.

4. The apparatus according to claim 2 wherein said container includes a anchoring mechanism (255) for anchoring said second end of said flexible rod to 20 form a loop.

5. The apparatus according to claim 4 wherein said anchoring mechanism comprises an end cap (400) capping said second end and a slot (246) in said container large enough to receive said rod but too small to pass said end cap.

6. The apparatus according to claim 1 and further comprising an end cap 25 capping one end of said flexible rod.

7. The apparatus according to claim 1 wherein said rod is made of a thermoplastic material.

8. A method of illuminating an object, said method comprising:

30 providing an illumination device including: a solid, flexible rod having an elongated length dimension terminated by a first end and a second end, said material having sufficient clarity and being sufficiently dispersive of light such that light entering one of said ends is transmitted along said elongated length dimension and radiates from said rod in substantially all directions along a substantial portion of

said length of said rod; and a light emitting diode located to illuminate said first end of said flexible rod; and

looping said flexible rod about said object.

5 9. A method as in claim 8 and further including adjusting the size of said loop.

10. An illumination apparatus comprising:

a flexible, light transmitting rod (300) having a first end (301); and

10 a light source ((515) located to illuminate said first end of said rod, said light source comprising: a light emitting diode (LED) (600) comprising a semiconductor chip (610) embedded in a dielectric casing (604), and a pair (601, 602) of electrical leads attached to said semiconductor chip; and a battery (500); wherein said electrical leads directly contact said battery.

11. An illumination apparatus as in claim 10 and further comprising:

15 an electronics container (200) for containing said light source, said container having a base (240) and a cap (220) for covering said base; and

a cam element (227, 250) located to press one of said electrical leads into electrical contact with said battery when said cap is rotated with respect to said base.

20 12. A method for switching an illumination apparatus including a flexible, light transmitting rod having a first end, and a light source located to illuminate said first end, said method comprising:

providing a base element and a cover enclosing said light source; and

rotating said cap with respect to said base element to switch said illumination on or off.